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Corrigendum

Corrigendum to "*Natrachaeobius chitinivorans* gen. nov., sp. nov., and *Natrarchaeobius haloalkaliphilus* sp. nov., alkaliphilic, chitin-utilizing haloarchaea from hypersaline alkaline lakes" [Syst. Appl. Microbiol. 42 (2019) 309–318]

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Protologue Table 4 describing properties of *Natrachaeobius chitinivorans* gen. nov., sp. nov., and *Natrarchaeobius haloalkaliphilus* sp. nov. has been amended with an extra line designating *Natrarchaeobius chitinivorans*as the type species of the genus *Natrarchaeobius,* in accordance to the Rule 20a of the ICNPA.

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Table 4
Natrarchaeobius chitinivorans and Natrarchaeobius haloalkaliphilus: protologue.

Parameter	Genus: ***Natrarchaeobius* gen. nov.**	Species: ***Natrarchaeobius chitinivorans* sp. nov.**	Species: ***Natrarchaeobius halalkaliphilus* sp. nov.**
Date created	2018-09-24	2018-09-24	2018-09-24
Taxon number (TXNR)	GA00091		
Author (AUTE)	Dimitry Y. Sorokin		
Species name (SPNA)		***Natrarchaeobius chitinivorans***	***Natrarchaeobius halalkaliphilus***
Genus name (GENA)	***Natrarchaeobius***		
Specific epithet (SPEP)	-	*chitinivorans*	*haloalkaliphilus*
Species status (SPST)	-	sp. nov.	sp. nov.
Etymology (GETY/SPTY)	*Natr.ar.chae.o'bi.us* [N.L. n. *natron* (arbitrarily derived from Arabic n. *natrun* or *natron*) soda, sodium carbonate; N.L. pref. *natr-* pertaining to soda; Gr. adj. *archaios* ancient; Gr. masc. n. *bios* life; N.L. masc. n. *Natrarchaeobius*, soda-philic archaeon]	*chitinivorans* [chi.ti.ni.vo'rans N.L. neut. n. *chitinum* chitin; L. pres. part. *vorans* devouring; N.L. part. adj. *chitinivorans* chitin devouring]	*halalkaliphilus* [hal.al.ka.li.phi'lus Gr. n. *hals halos* salt; N.L. n. *alkali* soda ash (from Arabic al-qalyi the ashes of saltwort); N.L. adj. *philus* (from Gr. adj. philos -*ê* -*on*) friend, loving; N.L. masc. adj. *halalkaliphilus* salt and alkali-loving].
Type species of the genus	***Natrarchaeobius chitinivorans***	yes	no
Authors (AUT)	Dimitry Y. Sorokin, Alexander G. Elcheninov, Stepan V. Toshchakov, Nicole J. Bale, Jaap S. Sinninghe Damsté, Tatiana V. Khijniak, Ilya V. Kublanov		
Title (TITL)	*Natrarchaeobius chitinivorans* gen. nov., sp. nov., and *Natrarchaeobius halalkaliphilus* sp. nov., alkaliphilic, chitin-utilizing haloarchaea from hypersaline alkaline lakes		
Journal (JOUR)	Systematic and Applied Microbiology		
Corresponding author (COAU)	Dimitry Y. Sorokin		
E-mail of corresponding author (EMAU)	d.sorokin@tudelft; soroc@inmi.ru		
Designation of the type strain (TYPE)	-	**AArcht4**	**AArcht-Sl**
Strain collection numbers (COLN)	-	JCM 32476; UNIQEM U966	JCM 32477; UNIQEM U969
16S rRNA gene accession number (16 SR)	-	KT247962	KT247971
Alternative house-keeping genes: gene [accession numbers] (HKGN)	-	*rpo*B' 33 single-copy conservative protein genes	
Genome status (GSTA)	-	Draft: AArcht4^T (accession SAMN10160502) AArcht7 (accession SAMN10160503)	Draft: (accession SAMN10160504)
GC mol % (GGCM)	-	61.9–62.3 (genomes of AArcht4^T and AArcht7)	61.1 (genome)
Country of origin (COUN)	Russian Federation, Mongolia, China, Egypt, USA	Russian Federation, Mongolia, China, Egypt, USA	USA
Region of origin (REGI)	-	Altai region; *N-E* Mongolia, Inner Mongolia, Wadi al Natrun, California	California
Date of isolation (DATI)	-	2011–2013	2012
Source of isolation (SOUR)	Surface sediments and brines of hypersaline alkaline lakes	Surface sediments and brines of hypersaline soda lakes	Surface sediments of hypersaline alkaline Searles Lake
Sampling dates (DATS)	1999–2013	1999–2013	2005
Geographic location (GEOL)	*S-W* Siberia, *N-E* Mongolia, Inner Mongolia, Northern Africa, North America	*S-W* Siberia, *N-E* Mongolia, Inner Mongolia, Northern Africa, North America	North America
Latitude (LATI)	-	-	N35°44'
Longtitude (LONG)	-	-	W117°20′
Depth (DEPT)	0–0.1 m	0–0.1 m	0–0.1 m
Temperature of the sample (TEMS)	15–25 °C	15–25 °C	20 °C
pH of the sample (PHSA)	9–11.0	9.5–11.0	9.0
Salinity of the sample (SALS)	18–40%	18–40%	35%
Number of strains in study (NSTR)	12	11	1
Source of isolation of non-type strains (SAMP)	-	hypersaline alkaline lakes in Russia, Mongolia, China and USA	-
Growth medium, incubation conditions (CULT)	Alkaline medium containing 4 M Na^+ with pH 9–9.5 and chitin as substrate	4 M total Na^+, equal mix of sodium carbonate and NaCl on the basis of Na molarity, pH 9.5; incubation - 37 °C; amorphous chitin as C, energy and N-source	4 M total Na^+, 1:3 mix of sodium carbonate and NaCl on the basis of Na molarity, pH 9; incubation - 37 °C; amorphous chitin as C, energy and N-source

Table 4 (*Continued*)

Parameter	Genus: ***Natrarchaeobius* gen. nov.**	Species: ***Natrarchaeobius chitinivorans* sp. nov.**	Species: ***Natrarchaeobius halalkaliphilus* sp. nov.**
Conditions of preservation (PRES)	Deep freezing in 15% glycerol (v/v)		
Gram stain (GRAM)	Negative		
Cell shape (CSHA)	Pleomorphic, from flat rods to cocci		
Cell size (CSZI)	-	0.6–1 μm in diameter, length is variable from 1 to 4 μm	0.6–1.2 μm in diameter, length is variable from 1 to 5 μm
Motility (MOTY)	-	nonmotile	
Motility type (MOTK)	-		
Type of flagellation (TFLA)	-		
Sporulation (SPOR)	None		
Colony morphology (COLM)	Pink-orange	Pink-orange, up to 2 mm	Pale orange, up to 1.5 mm
Temperature range for growth (TEMR)	20–55 °C	20–53 °C	25–55 °C
Lowest temperature for growth (TEML)	20 °C	20 °C	25 °C
Highest temperature for growth(TEMH)	55	50 (at pH 9)	55 (at pH 8.5)
Optimal temperature for growth (TEMO)	43–45 °C	43 °C	45 °C
Lowest pH for growth (PHLO)	6.5	7.0	6.5
Highest pH for growth (PHHI)	10	10	9.5
Optimum pH for growth (PHOP)	8.5–9.3	9.1–9.3	8.5
pH category (PHCA)	alkaliphile (optimum > 8.5)		
Lowest NaCl concentration for growth (SALL)	3.0 M total Na^+		
Highest NaCl concentration for growth (SALH)	5 M total Na^+		
Optimum salt concentration for growth (SALO)	3.5–4.0 M total Na^+	4.0 M total Na^+	3.5 M total Na^+
Other salts important for growth	Sodium carbonates		
Salinity category (SALC)	Extreme halophilic (optimum 3.5–4 M Na^+)		
Relation to oxygene (OREL)	Aerobe		
O_2 conditions for strain testing (OCON)	Aerobic		
Carbon source used (class) (CSUC)	Carbohydrates		
Specific compounds (CSUC)	Chitin, chitosane, hexoses	Glucosamine, *N*-acetylglucosamine, sucrose, maltose, trehalose, melizitose, cellobiose, glycerol	Glucosamine, *N*-acetylglucosamine, sucrose, maltose, trehalose, melizitose, fructose, glycerol
Nitrogen source (NSOU)	Ammonium		
Terminal electron acceptor (ELAC)	O_2		
Energy metabolism (EMET)	Chemoorganotrophic		
Phospholipids (PHOS)	Core membrane lipids are archaeol (C20-C20 DGE) and C20-C25 DGE Polar lipids are phosphatidylglycerophosphate methyl ester (PGP-Me), phosphatidylglycerol (PG)		
Glycolipids (GLYC)	-	Phosphatidylglycose (GL-PG), diglycosyl (2GL)	
Respiratory quinons	MK8:0	MK8:0	MK8:0
Habitat (HABT)	Hypersaline alkaline lakes		
Extraordinary feautres (EXTR)	Fast growth with chitin and chitosane in hypersaline alkaline brines Multiple chitinase genes (GH18 family) in the genomes		

(-), not fixed for the taxon.